

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
26 February 2004 (26.02.2004)

PCT

(10) International Publication Number  
**WO 2004/016885 A1**

(51) International Patent Classification<sup>7</sup>: **E05B 19/00**,  
49/00, 47/00, A44B 15/00

(21) International Application Number:  
PCT/AU2003/001029

(22) International Filing Date: 14 August 2003 (14.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2002950762 14 August 2002 (14.08.2002) AU

(71) Applicants and

(72) Inventors: **GRIFFITS, John, Philip** [AU/AU]; 99a  
Tallai Road, Tallai, Queensland 4213 (AU). **GRIFFITS,**  
**Yvonne, Sylvia** [AU/AU]; P.O. Box 721, Main Beach,  
QLD 4217 (AU).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,  
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,  
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

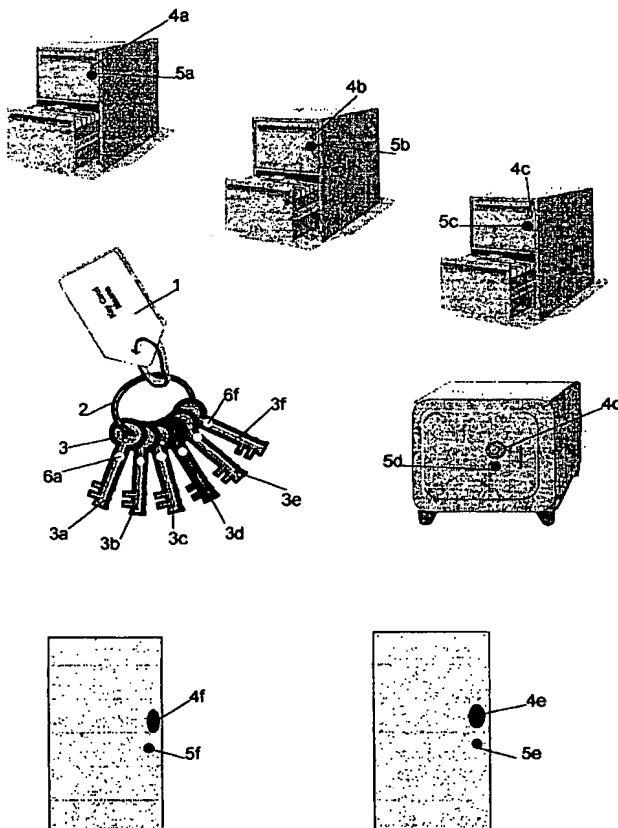
(74) Common Representative: **GRIFFITS, John, Philip**; 99a  
Tallai Road, Tallai, Queensland 4213 (AU).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

[Continued on next page]

(54) Title: IDENTIFICATION AND SELECTION OF KEYS FOR USE WITH LOCKS



(57) Abstract: The present invention describes a method for coupling electronically addressable and readable illumination means to one at least lock keys. Said illumination means may be used to identify key function and to select a particular key from a group of keys on a key grouping means (eg key ring). A novel key ring is described that may deliver power and electronic signals via conductor means to one at least keys.. The system is controlled by a key control means that is preferably provided in a key tag format. The invention provides scope to couple other electronic devices and functions to a key ring. A method of automatically attaching/detaching keys from a key ring is also described.



**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/01029

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
Int. Cl. 7: E05B 19/00, 49/00, 47/00 A44B 15/00		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols)		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched AU:IPC E05B 47/00, 49/00		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI : IPC E05B 19/00, A44B 15/00 and key, electronic, couple, attach, fix, connect, illuminate, decode, light, memory, display and so on		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 276 179 B (STRATTEC SECURITY CORPORATION) 21 August 2001 Whole document	1 - 38, 49 - 56
X	GB 2 356 426 A (GUESTKEY SOFTWARE LIMITED) 23 May 2001 Whole document	1 - 38, 49 - 56
X	WO 00/79078 A (INTERLOGIX, INC.) 28 December 2000 Whole document	1 - 38, 49 - 56
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex		
<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&amp;" document member of the same patent family</p>		
Date of the actual completion of the international search 15 December 2003		Date of mailing of the international search report 18 DEC 2003
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929		Authorized officer  <b>VENKAT IYER</b> Telephone No : (02) 6283 2144

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/01029

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 974 844 A (HARRELSON et al) 2 November 1999 Whole document	1 - 38, 49 - 56
X	DE 19654443 A (VOS VERKEHRS-OPTIMIERUNGS-SYSTEME G.m.b.H) 2 July 1998 Whole document	1 - 38, 49 - 56
X	WO 97/25503 A (SUPRA PRODUCTS, INC.) 17 July 1997 Whole document	1 - 38, 49 - 56
X	WO 96/23122 A (DAWALIBI) 1 August 1996 Whole document	1 - 38, 49 - 56
X	WO 94/01645 A (SMART LOCK LIMITED) 20 January 1994 Whole document	1 - 38, 49 - 56
X	Derwent Abstract Accession No.98-409720/35, Class A85, JP 10169264 A (TOKAI RIKI DENKI KK) 23 June 1998 Abstract	1 - 38, 49 - 56
X	DE 20113769 U (LII) 31 January 2002 Whole document	39
X	WO 02/21958 A (DRAGONSLAYER INVESTMENTS INC.) 21 March 2002 Whole document	58
X	DE 299 03 720 U (KRONENBERGER) 12 August 1999 Whole document	58

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/01029

## Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos :  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos :  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

## Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

SEE EXTRA SHEET

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/AU03/01029

### Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

#### Continuation of Box No:

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are different inventions as follows:

1. Claims 1 to 35. It is considered that a method of coupling a device that includes an electronic means to at least one key comprises a first "special technical feature".
2. Claims 36 to 38. It is considered that a method of coupling an electronic means to at least one lock comprises a second "special technical feature".
3. Claims 39 defines a method of coupling at least one power conductor to at least one key grouping means
4. Claim 49 to 56 define methods of providing or reading information pertaining to electronic locks or keys
5. Claim 58 defines automatically attaching/detaching one at least key means to and/or from one at least key grouping means.

Since the abovementioned groups of claims do not share any of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept, a priori.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU03/01029

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member			
US	6276179	US	5433096	US	6035677
		US	6367299	US	6427504
				US	6367298
				US	2003051520
GB	2356426				
WO	0079078	AU	57572/00	CA	2377888
				EP	1192326
US	5974844	EP	0955430		
DE	19654443	AU	58608/98	EP	1012430
		WO	9829626	US	6255957
WO	9725503	AU	28389/97	AU	28631/97
		BR	9612402	CA	2242837
		EP	1032742	US	5758522
		US	6046558	US	6047575
		WO	9857017		
				AU	79621/98
				EP	0873460
				US	5999095
				WO	9821117
WO	9623122	AU	44900/96	BG	101795
		CA	2211256	CN	1169173
		EG	21255	EP	0805906
		FR	2729700	HU	9702401
		NO	973420	NZ	300228
		SK	97797	US	6331812
				BR	9606857
				CZ	9702388
				FI	973026
				IL	116714
				PL	321537
				ZA	9600166
WO	9401645	AU	45100/93		
JP	10169264				
DE	20113769				
WO	200221958				
DE	29903720				
END OF ANNEX					